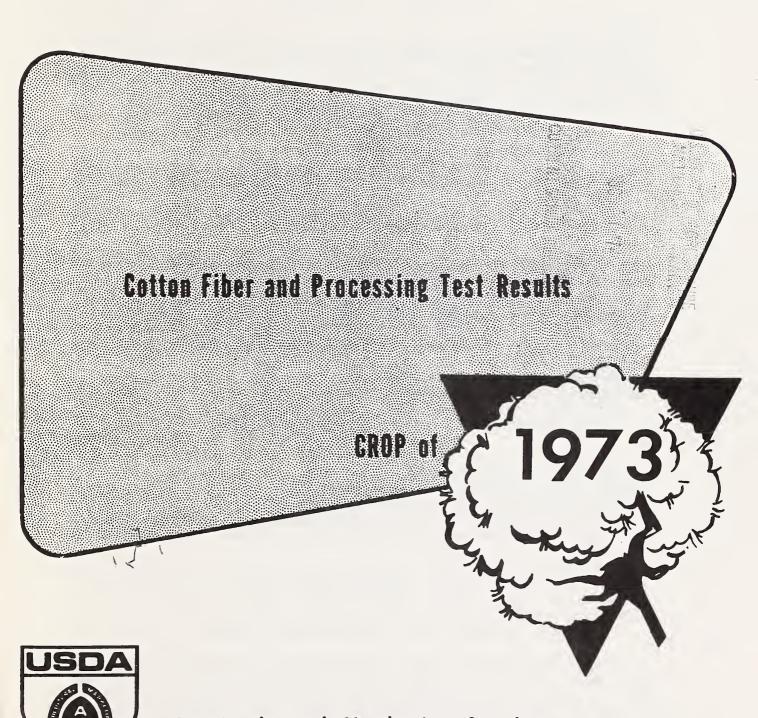
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Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38117 October 26, 1973

This is the fifth of a series of reports of fiber and processing test results from the 1973 cotton crop. Subsequent reports in this series will follow at approximately two-week intervals during the harvesting season, and will be summarized in a comprehensive report at the end of the season. This series will present data on the same subject as "Summary of Cotton Fiber and Processing Test Results, Crop of 1972", May 1973. These reports are published by the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, Memphis, Tennessee.

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1973

Discussion of Test Results

Cotton Division laboratories of the Agricultural Marketing Service, USDA report that average fiber properties for medium staple samples tested to date for the U. S. are shorter and weaker at 1/8" gage strength. Picker and card waste is less. Yarns spun from these samples show yarn appearance grades to be lower than a year ago. Samples tested to date show more yarn imperfections. Average spinning potential yarn number is lower.

Short staple samples tested from the Southwest show fiber length to be longer and uniformity higher than a year ago. Fiber strength at zero gage is weaker. Shirley Analyzer nonlint content and picker and card waste are higher than last year. Yarns spun from these samples are stronger with lower appearance grades than a year ago. Average spinning potential yarn number is lower.

Medium staple samples tested from the Southeast are limited, however, the fiber length is longer than a year ago. Fiber strength at zero gage is weaker and at 1/8" gage strength is stronger on the limited number of samples tested. The Shirley Analyzer nonlint content is more than a year ago. Yarns spun from these samples are stronger. The appearance grades are lower. Imperfections are greater than a year ago.

Medium staple samples tested from the South Central show approximately the same fiber properties as a year ago. Fiber strength is slightly weaker. Picker and card waste is less this season. Yarns spun from these samples show higher appearance grades and fewer imperfections. Average spinning potential yarn number is lower.

Medium staple samples tested from the Southwest show fiber length to be longer than a year ago. Fiber strength at zero gage is weaker. Picker and card waste is less compared with last season. Yarns spun from these samples are weaker. Appearance grades are lower with imperfections being higher this year. Average spinning potential yarn number is lower.

The limited number of medium staple samples tested from the West show fiber length to be longer and more uniform. Fiber strength is strong at both zero and 1/8" gage. Shirley Analyzer nonlint content and picker and card waste are lower than last season. Yarns spun from these samples are stronger. Average spinning potential yarn number is lower.

Long staple samples tested from the South Central are limited, however, the results show fiber properties to be shorter, coarser and weaker than last season. Comber waste is less than a year ago. Yarns spun from these samples are weaker and have higher appearance grades than last season. Yarn imperfections are more for carded yarns. Average spinning potential yarn number is lower than a year ago.

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rages of fiber and processing tests from selected gin points in the United States	through October 19, 1973 $1/$
Table 1Cotton: Aver	

			ان			- 4 -					
ng test results	g, u,	Potent.	Yarn No.	7†† 8††	8 8 8 8	67	63	65	99	m	
	ty	Imperf- ections	No. Yarn	23	20	20	25 5†	20	73 53	α	
	n quality	Appear-Imperf- ance ections	Index Carded	118	107	112	121	115	114	5	
Processing	Yarn	Skein str.	<u>Lbs.</u> 22s	95	108	108	103	96	106	4 (22s)	
		P & C waste	Pct.	6.4	5.8	5.9	5.4	4.0	5.0	0.5	
		S A nonlint	Pct.	9.4	8.0.	2.7	9.0	0.1 0.0	a a	0.5	
	Fiber strength	1/8" gage	G/tex	21 21	23 24	24 23	22	55 56	53 53	-1	Lity
Fiber test results		Zero gage	Mpsi	84 8 2	84 8 2	86 85	84 81	78	833	α	dal quality
er test	Mike	ness	Rdg.	† † † † †	† † † † † † † † † † † † † † † † † † †	4.5	4 t 5.t	4.5	44.5	9.0	s of modal
Fibe	raph	50/2.5 unif.	Pct.	5† 14	45 46	9† 1	46 45	777	45 46	Q	of samples
	Fibrograph	2.5% span	Inches	0.98	1.09	1.09	1.06	1.10	1.11	0.02	Based on a limited number of
	Lots	tested	No.	15	10	37	25 55	01 CV	73		a limite
Staple group Area, and Crop year			Short Staple: Southwest 1972	Medium Staple: Southeast 1972 1973	South Central 1972 1973	Southwest 1972 1973	West 1972 1973	U. S. Average 1972 1973	Significant dif- ference 2/	1/ Based on	

Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples. ોઓ

Averages of fiber and processing tests from selected gin points in the United States through October 19, 1973 1/ (Continued)

Table 1. -- Cotton:

	SPY	No.	92	m
			10	a
	Imprfetus			
50		No.	15	CV
Processing Test Results	rn Quality Appearance	Lbs. Indx Indx Carded & Combed Yarn	115	ľ
Test	Yarn Qua Appe d carded	Indx ed & Cc	105	ľV.
sessing	Ya gth combed	Lbs. s Carde	132	+(22s)
Proc	Strength carded com		711	μ(22s) μ(22s) μ(20s)
	Comber	Pct.	15.7	0.
	P&C Waste	Pct	88	0.5
	SA Non-	Pct.	സ സ യ യ	0 %
S	gth 1/8" gage	G/tx	25	۲ ا
Results	Strength Zero 1/8 gage gag		88	a
Test F		Rdg.	7.4	0.0
Fiber T	nif	Pct.	45 45	α
F.	Length Span U	In.	1.17	0.02
	Lots	No.	N N	
	Staple group, Area, and Crop year		Long Staple: South Central 1972 1973	Significant Difference 2/

Based on a limited number of samples of modal quality नोला

Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1973

	Spin.	tial	No		43	4.7	42	43
	ct'ns	22sor 27 tx	No		15	23	17	32
arns	Imprfect'ns	8s or 74 tx	81		17	23	22	41
rded Y	nce	22sor 27 tx	욍		120	110	120	100
Processing Test Results - Carded Yarns	Appearance Index	8s or 22sor 8s or 22s or 8s or 22sor 8s or 22sor 7t tx 27 tx 7t tx 27 tx 7t tx 27 tx 7t tx 27 tx	N N		130	120	130	120
Resul		s or tx	ct		8 . 9	6.8	6.8 1	
ng Test	Elongation	or 22	Pet Pet					6 6.3
ocessi		sor 8s	Tps		99 PERCENT 315 99 7.9	98 PERCENT 330 107 7.3	95 PERCENT 313 99 7.7	99 PERCENT 299 93 7.6
ᅜᅭ	Strength	or 22			99 PP	98 PE	95 PE 99	99 PE
			Tps			330	313	
	Color Raw Stock P & C	Waste	Pct		4.9	7.6	7.2	5.9
	Color w Stock	Yel	No		4	n	60	4
		Gra	No		7	m	4	7
	S.A.	lint	Pet		3.0	71 5.6	′1 4•6	3.6
lts	Elon- gat'n	1/8"	Pct		LX 57 6.1	LX 571 0.1 5.6	ART LX 57] 6.5	57
Test Results	Fiber Strength	1/8" Gage	G/tex		LANKART LX 57. 21 6.1	LANKART LX 571 22 0.1	LANKART 21	LANKART 57
Fiber Test	Fi	Zero Gage	Mpsi		89	89	48	81
	Mike		Rdg		4.6	4.4	4.4	4.6
	ital graph	Unif	Pet		45	4 8	8	46
	Digital Fibrograph	2.5% span	In 		16.	1.02	51 32 1.02	32 32 0.97
		Stple	32s	AREA	31	33	32	32
Area,	ber	de		A	31 31	51	51	32
Production Area, Classification	& Sample Number	No Grade Name & Code		SOUTHWEST	CENTRAL TEXAS AVALDN I MID	PRINCETON 1 LM	TAYLCR 3 LM	WAXAHACHIE 1 MID LT SP

Quality characteristics by production areas, crop of 1973	
Table 3 Cotton, American upland medium staple:	

								- 7	· -							
	Spin.	Poten- tial	No.		47	63		99	57	95	65	63	57	54	59	56
	Imprfect'ns	50s or	No		45	11		13	14	21	12	20	11	10	6	15
arns	Imprf	22s or 27 tx	No		53	2.1		20	19	25	16	24	14	12	13	15
- Carded Yarns	ance	50s or	No.		70	80		80	06	80	06	06	06	100	100	06
Results - Ca	Appearance Index	22s or 27 tx	<u>ا</u> لا		80	110		110	120	110	120	110	130	120	120	011
est Resi	Elongation	50s or	Pct		5.0	5.0		5.1	4.4	5.1	4.8	4.8	5.3	4. e	4.9	4.2
Processing Test	Elong	r 22s or 27 tx	1		PERCENT 44 6.6	PERCENT 44 6.4		PERCENT 42 6.6	PERCENT 36 6.6	PERCENT 42 6.8	PERCENT 40 6.8	PERCENT 41 6.5	PERCENT 41 7.1	PERCENT 37 6.5	PERCENT 38 6.6	PERCENT 36 6.4
Proce	ngth	50s or	Ips			PER 44		PER 42					PER 41		PER 38	PER 36
	Strength	22s or 50s or 27 tx 12 tx	Tps		90	100		100	95 107	100	100 114	100	100 114	90	100	100
	P & C		Pct		4.9	5.8		5.1	5.5	5.3	5.1	5.6	4.2	4.3	5.1	6.4
	Color Raw Stock	Yel	잃		m	m		m	æ	м	ĸ	6	2	m	2	m
	CO	Gra	SI.		2	~		~	m	7	2	7	-	7	-	2
	S.A.	Non- Lint	Pct		4.4	ان ان		2.1	3.7	3.0	3.4	3 3.6	1.6	1.8	3.7	3 2.7
t s	Elon-	gat'n 1/8"	Pct		201 6.7	511 6.4		NE 16 7.4	LLE 213	LLE 213	NE 16 7.2	LLE 213 6.9	NE 16 7.5	LLE 213 6.9	NE 16 7.7	LLE 21.
st Results	er ath	1/8" Gage	G/tex		COKER 2 24	MCNAIR 24		DELTAPINE 16 22 7.4	STONEVILLE 22 7.	STONEVILLE 25 7.0	DELTAPINE 16 23 7.2	STONE VILLE	DELTAPINE 16 22 7.5	STONEVILLE 22 6.9	OELTAPINE 16 23 7.7	STOWEVILLE 213
Fiber Test	Fiber	Zero	Mpsi		82	81		94	83	85	85	98	81	83	98	48
1		Mike	Rdg		4.2	4.5		6.4	4.8	4.4	4.6	4.7	4.4	4.5	4.4	5.0
	al ranh	Unif.	Pct		45	14		45	94	47	46	46	45	9 +	45	45
	Digital Fibrograph	2.5% span	티		1,15	1.13		1.12	1.10	1.12	1.13	1.13	1.11	1.09	1.09	1,10
	· · · ·	Stple	32s	EA	35	35	AREA	35	34	35	35	35	35	34	34	34
rea,	er			AREA	51	41	AR	41	41	41	41	41	31	41	41	1+
Production Area, Classification	& Sample Number	No Grade Name & Code		SOUTHEAST	GEORGIA TENNILLE 1 LM	NORTH CAROLINA LAURINBURG 1 SLM	SOUTH CENTRAL	ARKANSAS ALTHEIMER 1 SLM	BAY 1 SLM	LFACHVILLE 1 SLM	LEPANTO 1 SLM	VICTORIA 1 SLM	WILSCN 1 MID	MISSISSIPPI PRUCE I SLM	INCIANOLA 1 SLM	LYCh 1 SIM

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Spin. Potential 58 읽 20 73 61 64 10 72 52 54 22s or 50s or 27 tx 12 tx Imprfect'ns 12 tx No 13 16 23 1 14 22 17 16 22 14 17 54 19 56 22 20 - Carded Yarns 37 읽 50s or 90 18 tx 90 90 90 80 80 9 80 80 Appearance Index 22s or 120 120 120 110 120 110 100 110 90 Results 50s or 12 tx 4.4 4.2 5.2 3.9 5.2 3.7 4.7 4.6 5.0 Elongation Pct Test 22s or 27 tx 6.4 6.2 5.5 7.0 6.1 6.5 5.7 6.5 Processing 98 PERCENT 95 PERCENT 31 6. PERCENT 28 5.7 100 PERCENT 0 48 6. 100 PERCENT Pet 90 PERCENT 38 7. 70 PERCENT 85 PERCENT 43 7. 100 PERCENT 22s or 50s or 35 50 30 27 tx 12 tx Lbs Strength 99 131 116 101 130 Lbs 110 90 104 96 91 Waste ೮ 5.8 4.7 4.2 4.3 5.5 8.4 Pct 4.7 6.1 4.6 Д. 8 Raw Stock Yel 읽 n 6 m 3 m n n n 4 Color Gra 읽 2 ~ 4 4 ~ ~ S.A. Non-Lint 3.0 9.1 2.5 2.1 1.7 3.3 3.2 3.3 9.4 Pct STONEVILLE 213 STONEVILLE 213 gat'n 1/8" DELTAPINE 16 22 7.8 DELTAPINE 16 21 6.1 DELTAPINE 16 9.9 6.8 7.2 8.9 9.9 5.8 0.9 Pet TAMCOT SP37 **SP37** ACALA SJ-2 ACALA 5J-1 27 5. Results TAMCUT G/tex 1/8" Gage 23 22 21 22 21 Fiber Strength Fiber Test Gage Zero Mpsi 102 85 85 25 91 82 86 19 84 Mike 6.4 4.5 4.7 4.6 4.6 3,3 4.9 4.8 3.1 Rdg Unif. 5 Digital Fibrograph 48 43 Pet 14 47 44 45 45 47 1.13 1.12 2.5% span 1.04 1.08 1.10 1.08 1.03 1.12 1,08 32s In SOUTH CENTRAL AREA--(Continued) Stple 36 35 33 34 34 AREA 34 AREA 34 35 34 Production Area, 31 42 31 51 41 41 41 51 Classification Sample Number PORTAGEVILLE Name & Code BAKERSFIELD PAKERSFIELD 1 MID CENTRAL TEXAS ROSENBERG 2 SLM LT SP Grade SOUTH TEXAS DANEVANG 3 LM CALIFORNIA NAVASOTA CAMPBELL TENNESSEE GACSDEN WHITNEY 1 LM SULTHWEST MISSCURI 1 MID 1 SLM 1 SLM 1 MID 1 SLM WFST No

: 1973
crop of
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characteristics
Quality
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American
Table $^{\!\! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$

	Spin.	rocen- tial	<u>%</u>		70	62
	ct'ns	50s or 12 tx	<u></u> 8		9 S	14
arns	Imprfect'ns	22s or 27 tx	<u></u> ≅		11 5	30
arded	ance	50s or 12 tx	& %		100	90
lts - 0	Appearance Index	22s or 27 tx	% %		130	120
Processing Test Results - Carded Yarns	tion	Comber 22s or 50s or 22s or 50s or 22s or 50s or 22s or 50s or Waste 27 tx 12 tx 27 tx 12 tx 27 tx 12 tx 27 tx 12 tx	Pct		4°8 5°2	4 v v v
sing Te	Elongation	22s or 27 tx	Pct		ENT 6.2	5.9 6.7
Proces	th	50s or 12 tx	Ips		100 PERCENT 9 40 6. 5 50 6.) PERCENT 34 5- 45 6-
	Strength	22s or 27 tx	Lbs		10(119 135	80 104 126
	P&C and	Comber Waste	Pct		8.9 15.7	7.1 * 18.3
	Color P & (Yel	No		m *	m *
	Color Raw Sto	Gra	%		2	8
	S.A.	Lint	Pct		4.8	2.1
ts	Elon-	1/8"	Pct		310	ω
est Results	Fiber Strength	1/8" Gage	G/tex		COKER 310 25 6.	COKER 310 23 6
Fiber Test	F	Zero Gage	Mpsi		88	87
H		Mike	Rdg		4.7	4.5
	cal raph	Unif.	Pet		4	† ₇ †
	Digital Fibrograph	Stple 2.5% span	គ		41 37 1.17	1.10
		tple	32s	AREA	37	41 34
rea,	er	1 1				41
Production Area, Classification	& Sample Number	No Grade Name & Code		SOUTH CENTRAL	MISSISSIPPI MORGAN CITY 1 SLM	TENNESSEE TRENTON I SLM

* Comber Waste and Combed Yarn Data

